



**CITY OF**  
**St. Joseph**

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**AUG 18 2009**

**Water Bureau - DWEHS**

DEPARTMENTS

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269-983-5541

**ASSISTANT  
CITY MANAGER**  
269-983-5541

**BUILDING  
INSPECTIONS**  
269-983-1212

**CEMETERY**  
269-429-0021

**CITY ASSESSOR**  
269-983-1231

**CITY CLERK**  
269-983-6325

**CITY ENGINEER**  
269-983-5541

**COMMUNITY  
DEVELOPMENT**  
269-985-0349

**FINANCE/  
TREASURER**  
269-983-4731

**FIRE DEPARTMENT**  
923 BROAD STREET  
269-983-4641

**PARKS DEPARTMENT**  
269-983-6341

**PERSONNEL**  
269-983-0443

**PLANNING & ZONING**  
269-983-1212

**POLICE  
DEPARTMENT**  
269-983-2571

**PUBLIC SERVICES**  
1160 BROAD STREET  
269-983-6341

**WATER/SEWER  
BILLING**  
269-983-6324

**WATER SERVICE  
DEPARTMENT**  
269-983-6341

**WATER TREATMENT  
PLANT**  
269-983-1240

August 11, 2009

Brant O. Fisher, Environmental Engineer Specialist  
Water Withdrawal and Contamination Investigation Unit  
Drinking Water and Environmental Health Section Water Bureau  
Constitution Hall  
525 West Allegan Street  
Lansing, MI 48909-7773

**Re: City of St. Joseph Water Conservation Measures**

Dear Mr. Fisher,

I am writing in order to provide additional information per your request with regard to the City of St. Joseph's application for a 'new or increased large quantity withdrawal' (NILQW) of water from Lake Michigan. This information as you have made clear in your letter pertains to water conservation measures that the City has and will continue to practice.

*Distribution Main Replacement*

Since 1999 the City of St. Joseph has replaced some 40,000 feet of water main. This represents approximately 19% of the water distribution system. Additional work is scheduled for 2010 and 2011. These old water mains dating back to the early 20<sup>th</sup> century were prone to frequent breaks and leakage.

*Meter Replacement*

The City currently replaces meters that are registering low or zero flows upon field verification of a malfunctioning meter. In addition, the City has budgeted \$145,000 in the 2009/2010 Utility Services budget for the first phase of a residential meter change-out and conversion to radio read. Radio read will enable the utility billing department to provide enhanced service to our customers including the ability to detect abnormally high usage in a 'real time' mode. This will make it possible to not only advise customers of small leaks but also to detect breaks within a home or business may be vacant.

*Metering/System Audits*

The Water Filtration Plant is fully metered. In addition to influent water and filter backwash water, 'house' or internal water usage is measured and recorded daily. Also, system flows though the booster stations are totalized and recorded. This usage is compared to billable flow on quarterly basis.

**•• A Special Place on the Lake ••**

#### *Unmetered Accounts*

The City has installed meters at the cemetery and Eaton Park and is working to meter all public buildings.

#### *Leak Detection and Repair Programs*

Water main breaks are logged and recorded. The water lost during these events is also estimated and recorded. Areas of excessive breaks are placed on the water main replacement schedule.

#### *Fire Hydrant Water Usage*

All water used from hydrants is recorded. In addition, the fire department coordinates hydrant testing with the water department. Estimated flows are calculated based on duration of usage.

#### *Elimination of Summer Sewer Discount*

The City eliminated a discount on sewer charges during the summer whereby high usage due to sprinkling was averaged over the entire year in the sewer portion of the bill.

#### *Sprinkling Ordinance*

In 2005, the City enacted and actively enforces water conservation regulations. Specifically *Section 30, Ordinance 45* of the City of St. Joseph Code of Ordinances limits lawn sprinkling based on home address. Customers whose numerical home address is an odd number are limited to odd numbered dates and those whose numerical address is an even number to even numbered dates. The penalty for violation of this section is not less than \$100 and not more than \$500.

#### *Separate Lawn Sprinkler Meters*

The City does not encourage customers to obtain separate sprinkler meters.

#### *Full Cost Pricing*

The City practices 'Cost of Service' accounting and rate-setting methods in accordance with generally accepted accounting practices. In addition, the City has submitted user rate fee schedules as required under SRF.

#### *Public Education Initiatives*

The water plant is actively involved with the area school systems. This provides staff through water plant tours an opportunity to educate and interact with students in a variety of water supply, efficiency, and conservation issues. The water department also utilizes its annual Consumer Confidence Report and periodic water system updates as vehicles for public education.

*NILQW versus Reliability and Water Quality Concerns*

Above, I have summarized the water conservation measures that the City has undertaken as required given its NILQW. However, I would like to stress the fact that the intent of the new intake is heavily impacted by considerations other than capacity. Indeed, reliability and water quality are first and foremost the driving forces behind this project. The existing intake crib in Lake Michigan is highly vulnerable to frazzle ice and sand incursion. Frazzle ice blockages occur frequently during the winter and sand completely blocked the intake crib in 2005 thereby necessitating emergency dredging. In addition the location of the intake in shallow water and close to the St. Joseph River mouth adversely impacts water quality. The City received a treatment technique violation for the failure to adequately remove total organic carbon (TOC) in 2008. The City (plant) is finding it more challenging to control DBP's (disinfection by-products).

Given the aforementioned concerns regarding the existing intake, the City's intent is to utilize this intake only on an emergency basis or during maintenance of the new intake. Reliance on both intakes would jeopardize the water plant's compliance with the water quality provisions of Act 399. The new 32 MGD intake operating alone would enhance reliability, improve water quality and meet projected 20 year system demands.

If you have any questions or concerns please don't hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Alimenti', is written over the typed name and address.

Greg J. Alimenti, Water Plant Superintendent  
City of St. Joseph  
700 Broad Street  
St. Joseph, MI 49085

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Cc: Mr. Frank Walsh, City Manager  
Mr. Tim Zebell, P.E., City Engineer  
Mr. Gary Wozniak, P.E., MDEQ  
Mr. John Wuycheck, MDEQ